



S. RUSSELL SYLVA
Commissioner

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Metropolitan Boston - Northeast Region
5 Commonwealth Avenue
Woburn, Massachusetts 01801

June 28, 1985



RDMS DocID

110167

Boston Edison Company
800 Boylston Street
Boston, MA 02199

RE: WATERTOWN - Materials Management
Center, Massachusetts Hazardous
Waste Regulations Inspection
MAD000845412

Attention: Joseph A. Lepore

Dear Mr. Lepore:

On May 20, 1985, a representative of the Massachusetts Department of Environmental Quality Engineering, Metropolitan Boston/Northeast Regional Office, conducted an inspection of your facility. The purpose of the inspection was to determine compliance with the Massachusetts Hazardous Waste Regulations, 310 CMR 30.000, which were adopted by the Department under provisions of Chapter 21C, Sections 4 and 6, General Laws.

While Boston Edison Company's Materials Management Center was found to be in compliance with the Massachusetts Hazardous Waste Regulations, it is recommended that the following measures be taken to ensure adequate protection of human health and the environment:

1. The Contingency Plan should further describe the procedures and equipment to be used to prevent hazards in unloading operations.
2. The Contingency Plan should further describe the procedures and equipment to be used to mitigate effects of equipment failure/power failure.

Should you have any questions regarding this matter, contact Edward Pawlowski or Joseph Crossen at the letterhead address or by calling 935-2160.

Very truly yours,

Richard J. Chalpin
Richard J. Chalpin
Acting Regional
Environmental Engineer

RJC/JC/ae

cc: DEQE, DSHW, One Winter St., Boston, MA 02108, 5th Fl., Attn: Steve Dreeszen
Joseph J. DiVico, Agent, BOH, Administration Building, Watertown, MA 02172
Peter A. Gravalles, Boston Edison Co., 800 Boylston St., Boston, MA 02199



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

Received KES
8/27/85

August 22, 1985

Ms. Kathleen Finigan Stone, Environmental Engineer
Boston Edison Company
480 Arsenal Street
Watertown, MA 02172

Dear Ms. Finigan Stone:

Enclosed is a copy of the inspection report pertaining to the July 16, 1985 inspection at Boston Edison Company. Also included are copies of photographs taken during the inspection.

Any questions or comments can be directed to me at (617) 223-0316.

Sincerely,

Joan M. Jouzaitis

Joan M. Jouzaitis, Chemical Engineer
Office of Pesticides and Toxic Substances

Enclosures

PCB Inspection at Boston Edison Company

Watertown, MA

July 16, 1985

Joan M. Jouzaitis

I. Facility and Responsible Official

Boston Edison Company
480 Arsenal Street
Watertown, MA 02172

Ms. Kathleen Finigan Stone
(617) 424-3380

II. Inspection Participants

Boston Edison Company

Paul E. Ardito, Hazardous Materials Coordinator
Kathleen Finigan Stone, Environmental Engineer
John W. Gannon,
Peter A. Gravellese, Senior Environmental Engineer

U.S. E.P.A - Region I

Anthony F. Palermo, Environmental Scientist

Anthony F. Palermo

Joan M. Jouzaitis, Chemical Engineer

Joan M. Jouzaitis

Background

Boston Edison Company is a public utility which was incorporated in 1886. The company supplies electricity to the City of Boston, and 39 surrounding cities and towns.

The central warehouse for Boston Edison is located in Watertown, MA. Over 600 substations are located throughout the service area.

Entry/Opening Conference

At 9:50 a.m., July 16, 1985, Tony Palermo and myself met with Paul E. Ardito, Kathleen Finigan Stone, John W. Gannon, and Peter A. Gravellese of Boston Edison Company. Ms. Finigan Stone and Mr. Gravellese work in the Corporate Environmental Affairs Division. Mr. Ardito also works out of the Boston Office. Mr. Gannon works at the Materials Management Center in Watertown, MA.

Tony explained that we would be conducting a PCB inspection of the facility, under the authority of the Toxic Substances Control Act. He also told the company representatives that Boston Edison Company was being inspected as a follow up to a February 1983 inspection.

Tony presented his EPA credentials, and issued a Notice of Inspection and TSCA Confidentiality Notice.

Investigation

We were told that there are four major divisions within Boston Edison: Stores Division, Meter Group, Laboratory and Garage. The Stores Division, which is centered at the Watertown facility, is subdivided into 3 divisions: Stock, Trucking and Shop. The Stock Division handles materials in general, and is responsible for maintenance of the central warehouse. Within the Stock Division, there are 6 overhead service centers, 3 generating stations (located in Plymouth, Everett and South Boston), and 1 underground service center, which is located at the old Dorchester facility. All material transport is handled through the Trucking Division. The Shop performs repairs and handles testing and fabrication of materials.

There are two departments with equipment in the field--Transmission and Distribution, and Electric and System Operations. The Transmission and Distribution Department keeps an annual report on the computer regarding overhead systems. The Electric and System Operations Division maintains substations and vaults with PCB equipment in service.

The Watertown facility operates one shift, 5 days per week.

Mr Gannon told us that Boston Edison is in the process of eliminating all PCB equipment in service. He said that a minimum of PCB transformers are in stock, and that the company tries to send failed askarel capacitors directly to a disposal company or a TSDF facility.

Mr. Gravellese explained that the phase-out program cost the company \$40,000,000 and is expected to be completed by 1989. He said that the company is well underway with the process of removing network transformers. Ms. Finigan Stone explained that there are no PCB or PCB contaminated pieces of electrical equipment owned by Boston Edison food/feed locations.

Ms. Finigan Stone told us that Boston Edison owns 40-50% of all indoor commercial askarel transformers in Boston. She said that Boston Edison started out with 750 askarel transformers in the Electric and System Operations Division. She noted that would be a high estimate for the current number of PCB transformers, because of the current phase out of PCB equipment.

Mr. Gannon explained to us that askarel filled units are not serviced if they fail, but rather they are disposed of. He said that only oil-filled transformers are serviced at the Watertown facility. Clor-N-Oil tests are performed on oil filled equipment before servicing is performed. Lab tests are also run, to provide back up data. Boston Edison maintains its own laboratory for PCB analysis.

Ms. Finigan Stone said that oil filled transformers are generally used for outdoor locations. According to her, overhead transformers and those located in secondary network vaults are oil filled. Oil filled transformers are not routinely tested for PCB concentration, but are assumed to be PCB contaminated. Transformer spills from oil filled transformers are tested using Clor-N-Oil kits. Ms. Finigan Stone said that based on testing of oil filled transformers, 80% contain less than 50 ppm PCBs and 90% contain less than 500 ppm PCBs.

Ms. Finigan Stone told us that most older capacitors used by Boston Edison are PCB capacitors. She said that the company also uses silicon filled capacitors, which are non PCB. In 1981-1982, Boston Edison owned approximately 6,000 PCB capacitors. This number has decreased since then, due to the PCB phase out program. Mr. Gannon explained that all PCB capacitors could not be removed from service now because the capacitance is needed for the summer. Some PCB capacitors are kept in reserve for emergency situations, rather than being immediately disposed. Capacitors which are removed from service, and designated for disposal are destroyed by incineration. Inland Pollution and Clean Harbors are two of the disposal companies utilized.

Ms. Finigan Stone told us that oil filled regulators and switches are treated as PCB contaminated electrical equipment.

Mr. Gannon explained that oil filled cable is used by Boston Edison, and this is non-PCB.

We were given a tour of the Transformer Shop. In this shop was a regulator which was awaiting a decision on what to do with it. This regulator was located on a metal tray on a wooden pallet, with absorbent material placed under it. This regulator was removed from the field on June 24, 1985, according to markings on the transformer. An "M_L" mark was visible on the regulator. Mr. Gannon did not know why this mark was there, but explained that he believed it was because of the results of Clor-N-Oil testing performed on the unit. A tag attached to the regulator had the code number E94127. Photograph #8 was taken of this regulator.

We viewed a drum of Dow Corning 561 silicone transformer fluid. Kathleen Finigan Stone explained to us that this was originally purchased to retrofill and reclassify PCB transformers. Boston Edison felt that too great a time was required to bring PCB concentrations down to less than 50 ppm PCBs, and so this fluid is now only used for new non-PCB equipment. We took a photograph (photo #1) of this drum of transformer fluid.

We also saw a silicon rectifier which was oil cooled. This had been retrofilled and had an attached notice that said the fluid was to be retested after 90 days in service. We took a photograph of the nameplate on the rectifier (photo #6), and a photograph of the entire rectifier (photo #7).

Mr. Gannon told us that askarel fluid may be used for minor switch repairs. He estimated the frequency of such repairs as three times per year. The askarel for such repairs is stored in an Annex III.

We saw a waste drum of askarel in the transformer shop. This drum was "M_L" marked, and had a notation on it which stated that the waste collection was initiated on June 19, 1985. Tony looked in the drum and estimated that less than 1 inch of fluid was contained in it. He also told the company officials that the drum should be stored within an Annex III because the PCB concentration was greater than 500 ppm. A photograph was taken of the "M_L" mark on the drum (photo #3), and a photograph of markings on top of the drum was also taken (photo #4).

Located next to the waste drum of askarel was a 55 gallon drum of solid waste. A label saying that the contents were PCB contaminated was affixed to the side of the drum, but the drum was not "M_L" marked. According to the marking on the drum, waste collection was initiated on June 20, 1984. Mr. Gannon said that the drum was dated incorrectly and should have read June 20, 1985.

There was a drum of waste oil adjacent to the drum of solid waste. This was labeled as drum #10, and had a "PCB contaminated" sticker attached to it. Marking on the drum indicated that waste collection was initiated on May 9, 1985. Mr. Gannon said that this waste oil was from the Electric and System Operation Division's field sampling. Tony told Mr. Gannon that the drum should be placed within an Annex III after 30 days.

We took a photograph (photo #2) of the three drums of PCB and PCB contaminated waste (photo #5).

There was a pump located within the transformer shop. This pump was mounted on a wooden board which was marked "Askerel only", and the pump was "M_L" marked. Hoses leading to the pump were stored in drip pans approximately 2 inches deep. Mr. Gannon said that the pump had been used on electrical equipment with PCB concentrations of greater than 500 ppm. Tony told the company representatives that the pump should be placed within an Annex III since it is classified as a PCB item. Ms. Finigan Stone disputed this, saying that the item was not in storage for disposal, and therefore did not need to be placed within an Annex III. The PCB regulations require that dielectric fluid, whether in use or in storage for disposal, be stored in an Annex III facility. A photograph (photo #9) was taken of this pump.

We were shown the PCB temporary storage area. Six 55 gallon drums which were marked as containing PCB contaminated material, but not "M_L" marked, were located on pallets within this area. The drums were awaiting shipment to the storage area. A photograph (photo #10) was taken of one of these drums. Two drums were dated July 5, 1985 and contained PCBs at a concentration of 52 ppm, according to markings on the drums. Four drums were dated July 8, 1985 and the drums were marked " + 50 ppm". A photograph (photo #11) was taken of the drums in temporary storage. Tony told the company officials that the drums should be "M_L" marked. "M_L" markings were placed on the drums before the end of the inspection.

Four tanks which were used for non-PCB fluids were also located within this storage area. One of the tanks had a "PCB contaminated" sticker attached to it. The tank was scheduled to be decontaminated. Once that is accomplished, the sticker will be removed.

Within the temporary storage area, we viewed an oil filled transformer with tag number E65189. This was operating equipment, and assumed to be PCB contaminated.

We were shown around the Oil House. Within this room were such items as a vacuum filtering process, spill kits, and empty drums. No askarel or PCB contaminated fluid was allowed in this area.

The storage area for in-service items was observed next. This area was located outdoors, on asphalt. We took a photograph (photo #12) of the storage yard. There was a number of drained PCB contaminated or non PCB transformers located within this area. We took two photographs (photos #13 and #14) of the drained transformers.

We were shown the Annex III facility. This was a room with partial berming, continuous impervious concrete floors, and no apparent floor drains. A red sign indicating "PCB Storage Area" was hanging in the air above the storage area. Inside this storage area were 8 drums of askarel. These were marked "good inerteen", and were "M_L" marked.

Fifteen drums of solid material which were marked as "PCB contaminated" but not "M_L" marked, were located on wooden pallets within a bermed portion of the Annex III. These drums had various dates on them, ranging from June 7, 1985 to July 10, 1985. The berm surrounding these drums was "M_L" marked. Portions of the drums were not contained within the bermed area, but rather overlapping it. Tony told the company representatives that this should be corrected.

There were approximately 100 drums of PCB contaminated liquid stored 2 levels high. Dates on these drums ranged from June 26, 1985 to July 15, 1985. The drums were marked "PCB contaminated", but not "M_L" marked, and Tony told the inspection participants that they should be. Three pictures were taken (photos #15 - #17) of these drums containing PCB contaminated liquid.

Fifteen small black containers of stock PCBs were observed next. Each of these containers was "M_L" marked.

An oil detection^c system has been installed in this outdoor facility. Within this area there are many oil filled (but no askarel) transformers that the company claims to be in service. It appears that many of them may not be serviceable. Some are being stored for spare parts and are marked "junk". It appears from company officials that if a disposal option that the company considers "safe" was available, many of these transformers would be disposed of. Areas around several of these transformers appeared to be oil stained. (Some stains on wood platforms, however may have actually been waters stains). Company officials speculated that the oil stains may have been due to oil dripping from several oil filled cables. Oil was observed dripping from one piece of cable, but no other active leaks were observed.

Two crates of large PCB capacitors which were removed from service were viewed. Both of these crates were "M_L" marked. The crates were shut, so that it was not possible to determine if the individual capacitors were "M_L" marked.

Seven Rollins boxes with PCB capacitors in them were located near the Annex III. These Rollins boxes were all "M_L" marked.

Nine old capacitors which are all considered as in-service equipment were viewed. All were "M_L" marked.

In front of one of the Rollins boxes were 8 old capacitors. Each of these capacitors was "M_L" marked. A photograph (photo #18) was taken of the old capacitors and Rollins boxes.

Photograph #19 was taken of the drums and surrounding storage area. This picture could not be developed.

We reviewed a record book which noted drums coming into the storage area, and were told that records regarding drums exiting the storage area could be traced by manifest, using the container number. We were provided with a demonstration of the drum tracking procedure.

We discussed with the company personnel the inspection requirement for PCB transformers. We were shown cards which noted observations from weekly inspections conducted at the Stock Storage Area (which includes the Annex III facility), New Materials Area and Gas Cylinder Storage Area. PCB transformers are not "on line" at this facility, since it is a storage and repair facility.

We were provided with a copy of the 1984 PCB annual report for the Stores Department. The first page of this seven page document listed totals for liquid PCB, PCB capacitors, PCB transformers and PCB regulators in use within the Stores Department. A breakdown of the totals listed on page 1 was given on the remaining pages of the report.

We were also provided with a copy of the "BECO Hazardous Waste System 1984 Annual PCB Report". Quantities of PCBs and PCB items both received at and shipped from the facility were listed in this computer generated report.

Tony cautioned that the transformers considered to be "in service" by the company should not be stored indefinitely in the in-service equipment storage yard if they are "junk" and non repairable.

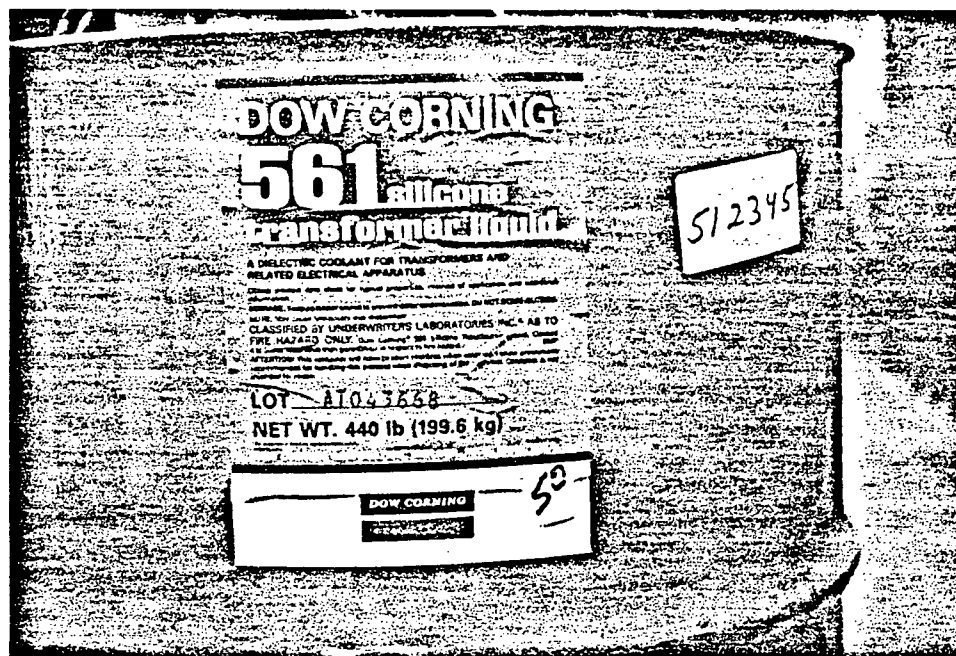
A follow-up inspection, which will cover the issues of spill cleanups and PCB transformer use authorization, will be conducted at a later date.

Ms. Finigan Stone requested a copy of the inspection report.

BOSTON EDISON COMPANY

WATERTOWN, MA

7/16/85



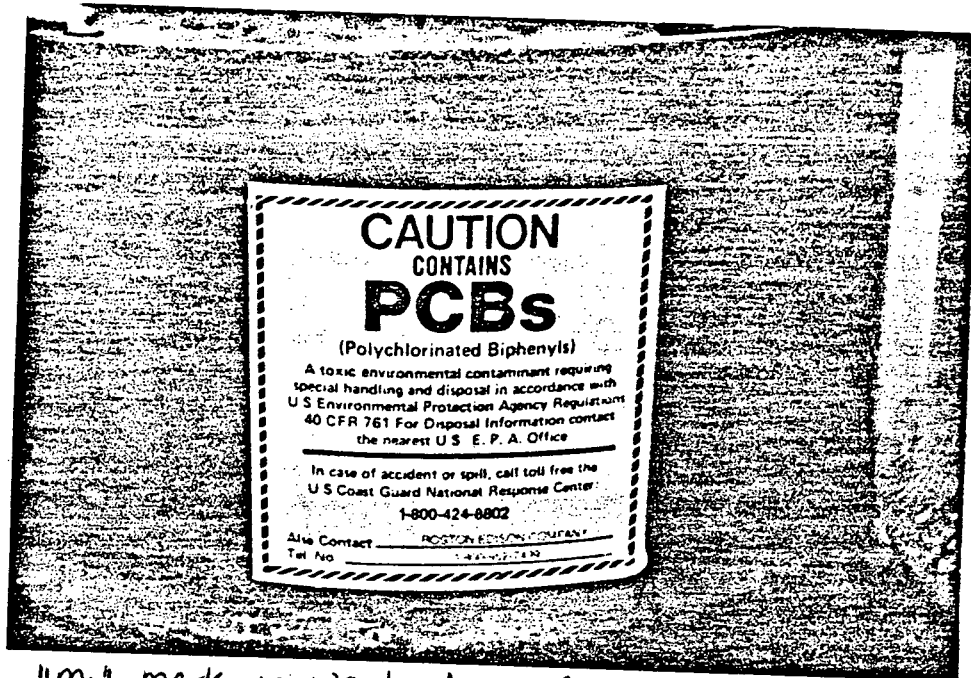
Dow Corning 561 Silicone Transformer Liquid
Photo #1



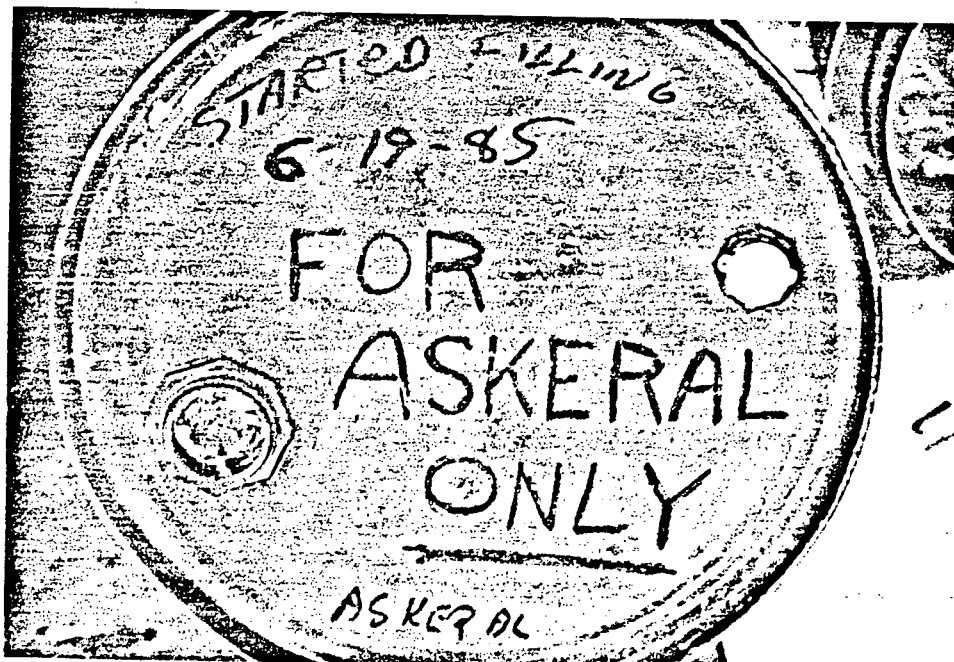
PCB & PCB Contaminated Waste Drums (3)
Photo #2

BOSTON EDISON COMPANY
WATERTOWN, MA

7/16/85



"ML" mark on waste drum of Askarel
Photo #3



markings on Top of waste drum of Askarel
Photo #4

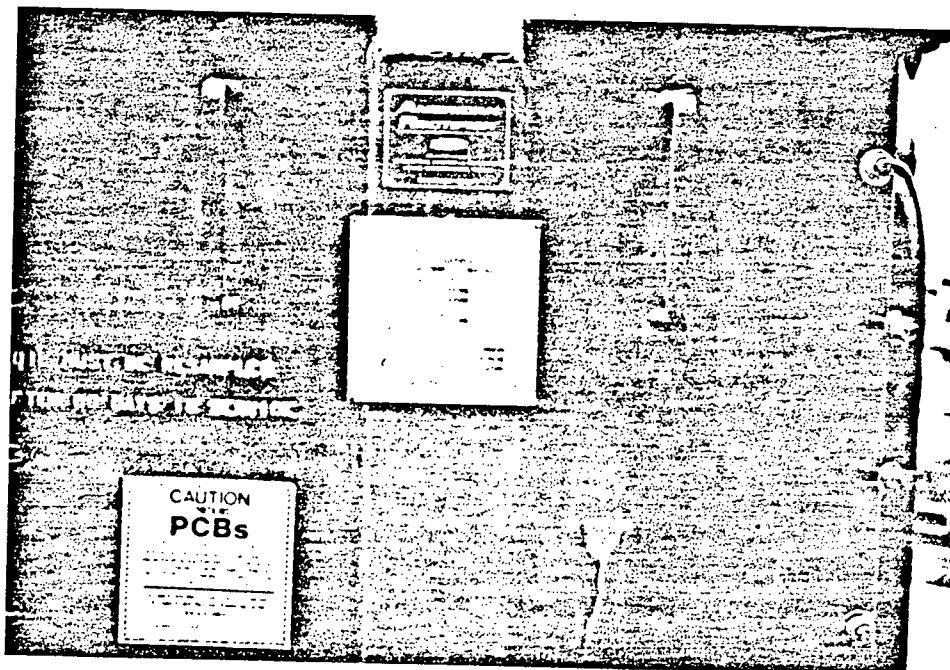
BOSTON EDISON COMPANY

WATERTOWN, MA

7/16/85



Two Drums of PCB Contaminated Rags + Liquid
Photo #5

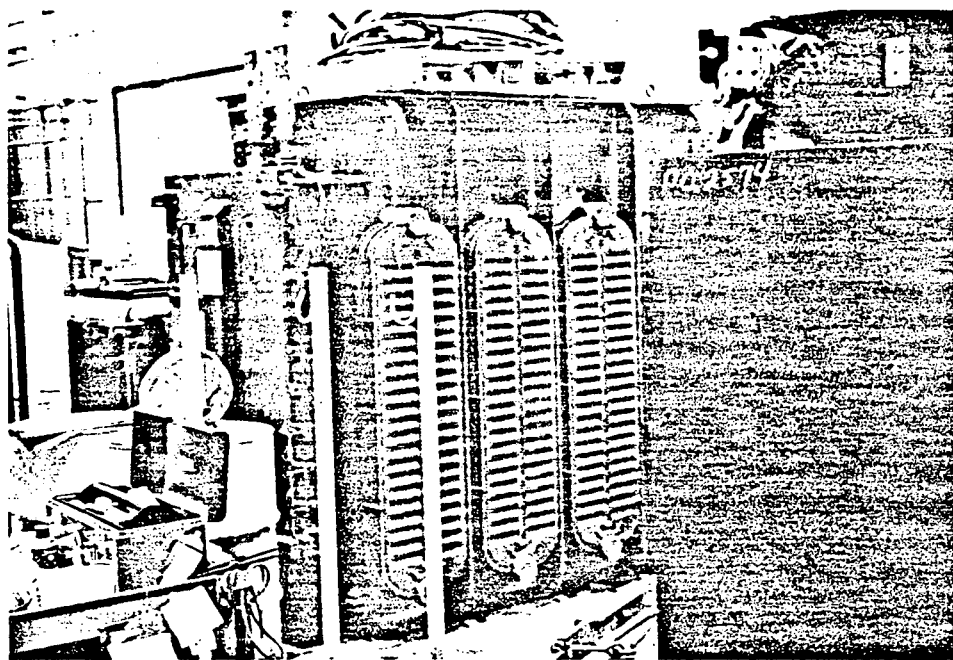


Nameplate of Rectifier in Transformer Shop
Photo #6

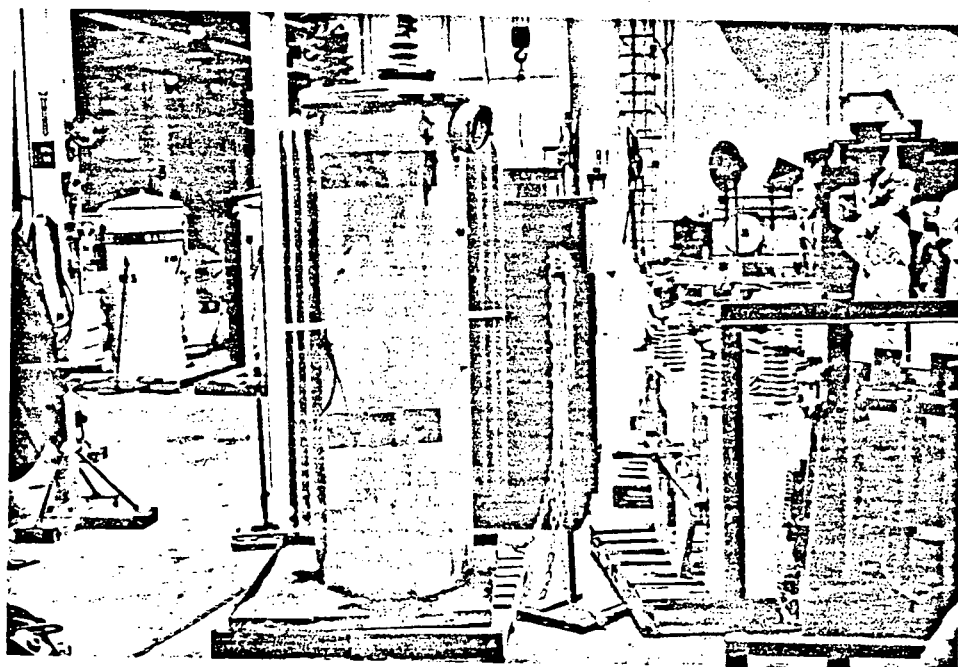
BOSTON EDISON COMPANY

WATERTOWN, MA

7/16/85



Overview of Rectifier in Transformer Shop
Photo #7



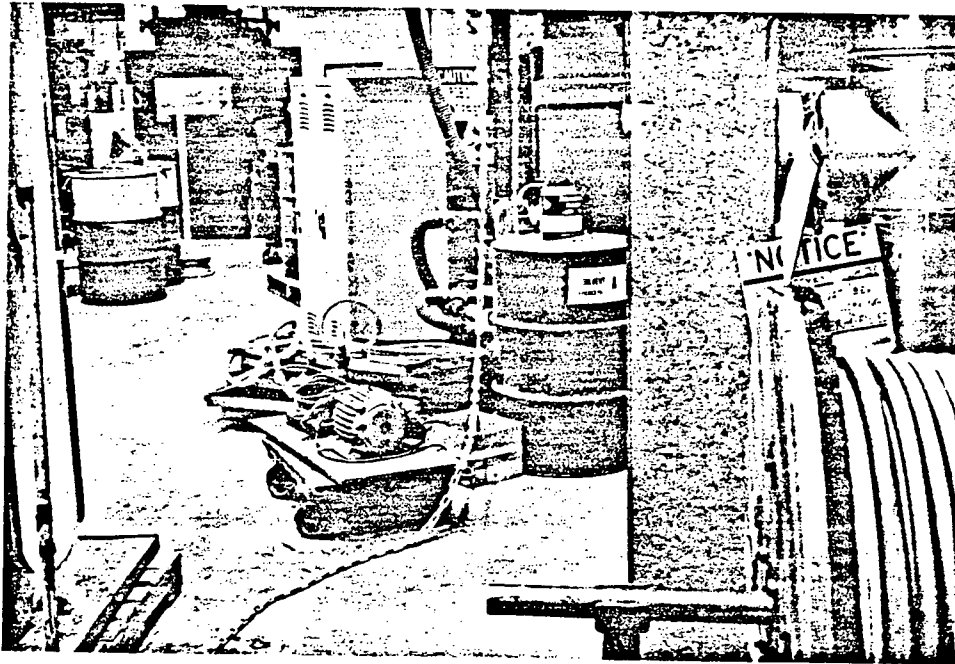
Regulator

Photo #8

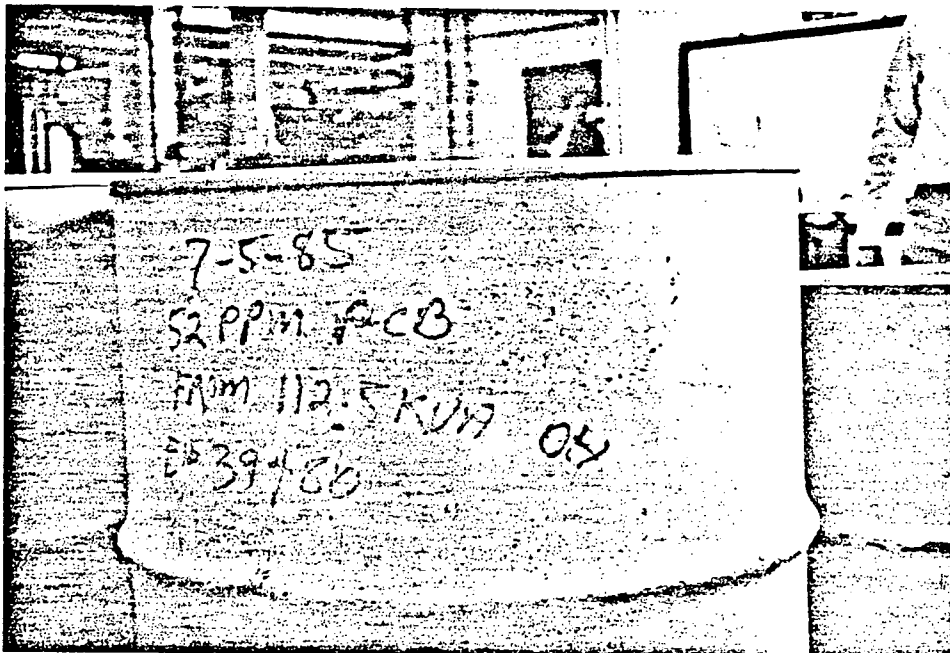
BOSTON EDISON COMPANY

WATERTOWN, MA

7/16/85

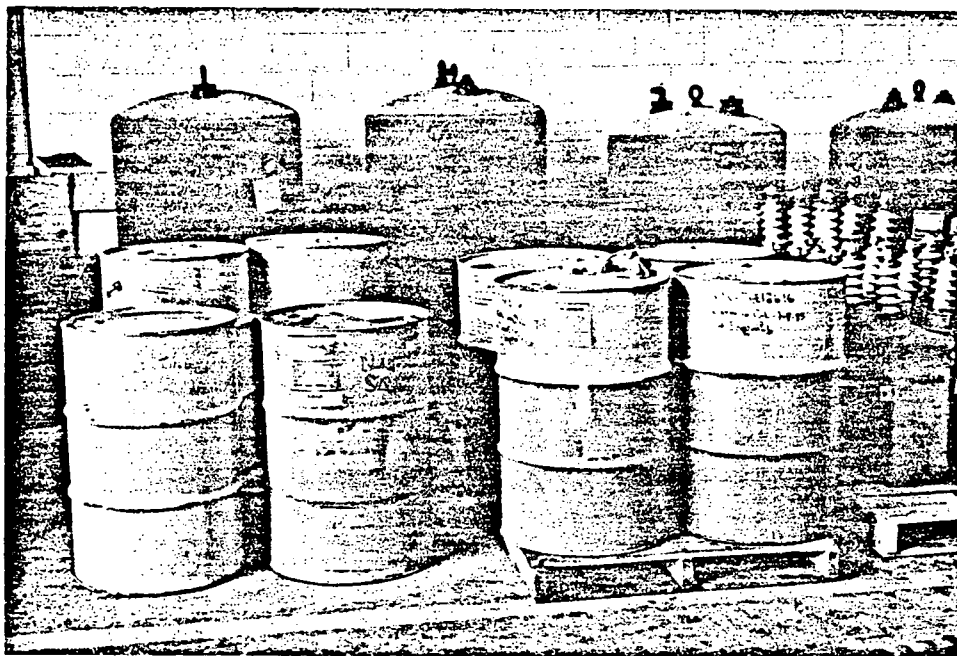


Pump Located in Transformer Shop
Photo #9

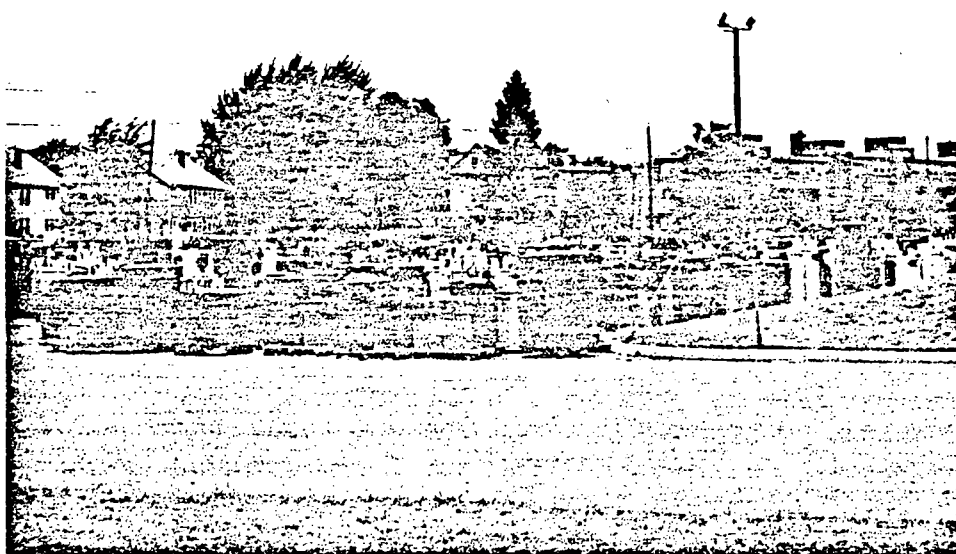


Drum of PCB Contaminated material in Temp. Storage
Photo #10

BOSTON EDISON COMPANY
WATERTOWN, MA
7/16/85



Drums in Temporary Storage Area
Photo # 11

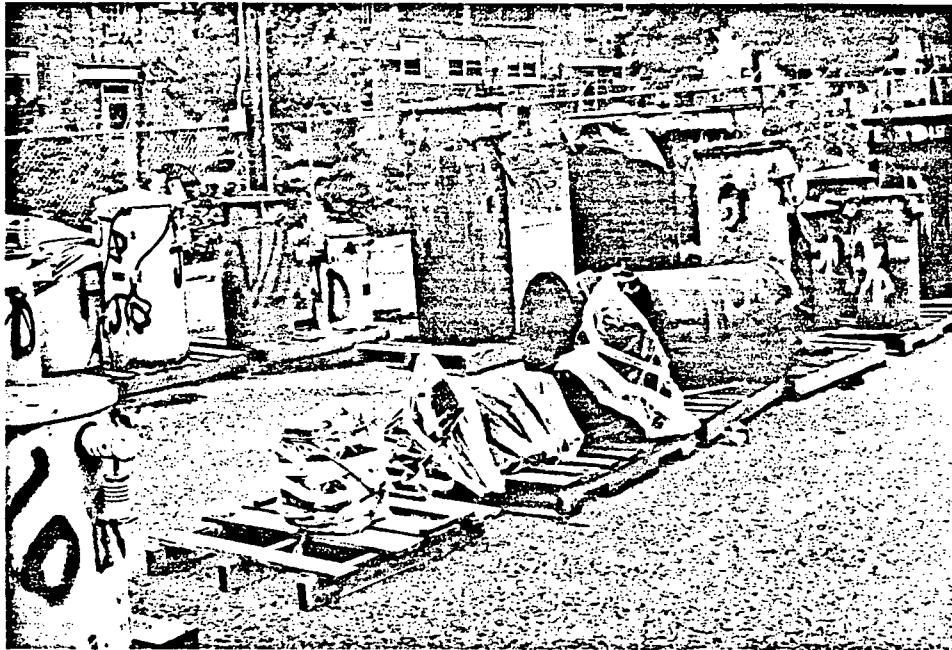


Storage Yard of in-Service Equipment
Photo # 12

BOSTON EDISON COMPANY

WATERTOWN, MA

7/16/85



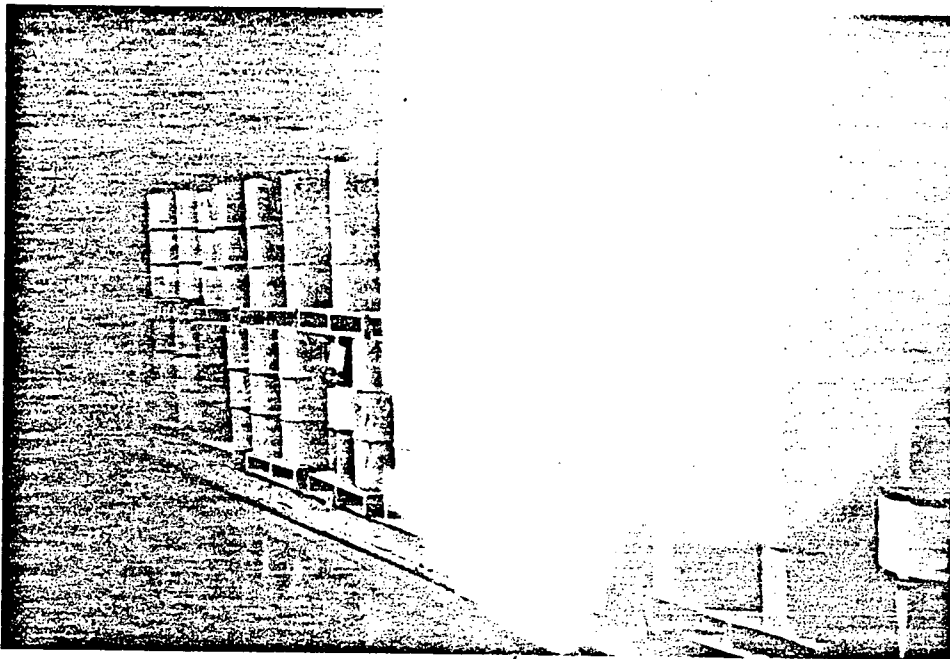
Drained Transformers in In-Service Storage
Photo #13



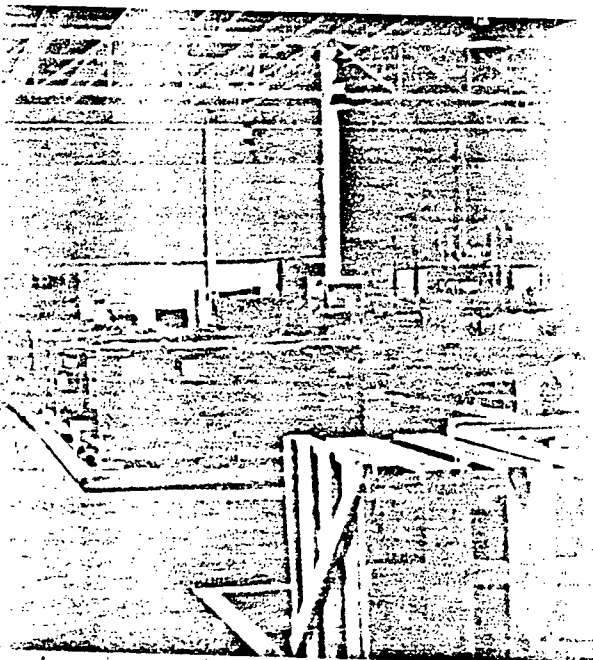
Drained Transformers in In-Service Storage
Photo #14

BOSTON EDISON COMPANY
WINTERTOWN, MA

7/16/85

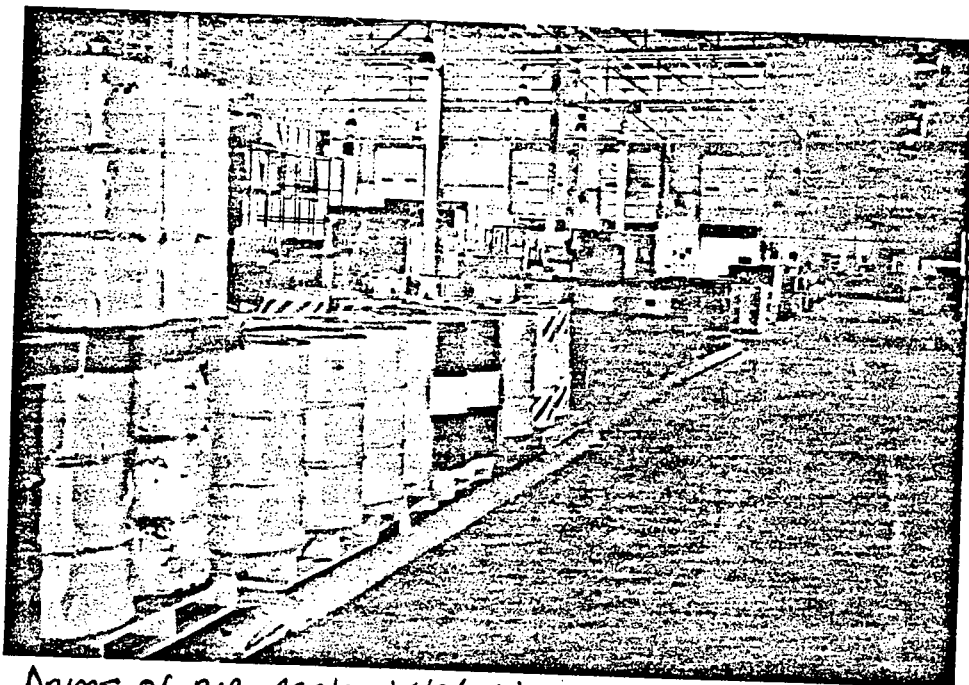


Drums of PCB Contaminated Liquid in Annex III
Photo #15



Drums of PCB Contaminated Liquid in Annex III
Photo #16

BOSTON EDLSON COMPANY
WATERTOWN, MA
7/16/85



Drums of PCB Contaminated Liquid in Annex III
Photo #17



Capacitors and Rollins Containers in Annex III
Photo #18

BOSTON EDISON COMPANY
WATERTOWN, MA
7/16/85

Photo did Not
Come Out

Drums & Surrounding Storage Area in Annex III
Photo # 19

BOSTON EDISON COMPANY
EXECUTIVE OFFICES
800 BOYLSTON STREET
BOSTON, MASSACHUSETTS 02199

RICHARD J. COUGHLIN
VICE PRESIDENT
PROCUREMENT STORES AND SERVICE ORGANIZATION

February 10, 1984

Environmental Protection Agency
State Waste Program
John F. Kennedy Federal Building
Boston, MA 02203

Re: Boston Edison Company
Materials Management Center
Watertown, MA MAD000845412
Interim Status

Dear Sir/Madam:

On November 18, 1980 Boston Edison Company submitted to the Environmental Protection Agency a Part A application for interim status as a hazardous waste facility under the Resource Conservation and Recovery Act (RCRA) for Boston Edison's Materials Management Center in Watertown, Massachusetts, EPA ID #MAD000845412. As was stated in the cover letter for that submittal, Boston Edison was not certain at that time whether such application was legally or technically required under applicable state and federal laws and regulations governing hazardous waste facilities. It is presently Boston Edison's view that the Materials Management Center is not a hazardous waste facility and such interim status is not required. Consequently, Boston Edison hereby withdraws its Part A application for the Materials Management Center.

The hazardous waste process identified in our Part A application was the storage of hazardous wastes in containers, specifically, the storage of spent solvents and "fullers earth" (clay) which was believed to be toxic. The facility still generates these materials in addition to waste oils, waste PCB oil and waste PCB equipment which have since become hazardous under the Massachusetts hazardous waste regulations, 310 CMR 30.000.

While the facility does generate such wastes, it should be noted that the facility is operated so that these wastes are not stored greater than 90 days as evidenced by our Annual Reports, and it is our intention to continue to operate the facility in that manner in accordance with the requirements of 310 CMR 30.340. Furthermore, all PCB wastes will be handled and managed in accordance with all the requirements of the TSCA regulations 40 CFR 761. Therefore, we request that interim status as a storage facility be dropped at the Materials Management Center and that we remain a generator with less than 90 day accumulation only.

It is intended that such change of status take effect prior to February 13, 1984 as discussed in your letter to facility owners or operators dated November 30, 1983.

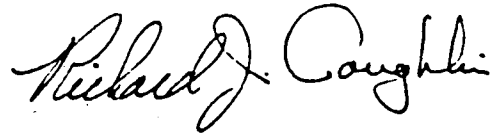
Environmental Protection
Agency

-2-

February 10, 1984

If you have any questions regarding this matter, please feel free to call Mr. F. M. Lee, our Environmental Affairs Manager, at 424-2537.

Very truly yours,



/sjc

cc: Department of Environmental Quality Engineering
Division of Hazardous Waste
One Winter Street
Boston, MA 02108

Department of Environmental Quality Engineering
Division of Hazardous Waste
323 New Boston Street
Woburn, MA 01801

bcc: C. B. Damrell
F. M. Lee
W. S. Stowe
K. Finigan Stone
P. A. Gravallesse
J. A. Lepore
P. E. Ardito
J. W. Gannon
Environmental Affairs
Subject File: Hazardous/Solid Waste
Interim Status